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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/589,475

08/14/2006

Thomas Dorner

TM030

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52203 7590 05/13/2008

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EXAMINER

NGUYEN, DANNY

ART UNIT

PAPER NUMBER

2836

MAIL DATE

DELIVERY MODE

05/13/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/589,475	DORNER, THOMAS	
	<b>Examiner</b>	<b>Art Unit</b>	
	DANNY NGUYEN	2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10-15 is/are rejected.
- 7) ☒ Claim(s) 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/14/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kade (USPN 4,532,567).

Regarding claim 10, Kade discloses a circuit arrangement (figure 2) for protecting a switching element (such as 76) from overload (over-current condition) when activated, the switching element being connected between an electrical consumer (a motor 32) and a supply voltage (44), and being controlled by a control signal (112), the circuit arrangement comprising

evaluation elements (148, 154) for determining a malfunction by a switching element voltage that falls across an activated switching element (76)(e.g. see col. 6, lines 13-21);

a memory (160, 168, 169) for storing malfunction information and for generating a malfunction signal (at node 170) (see col. 6, lines 37-47); and

a feed back element (50, 108, 110) for taking into consideration the malfunction signal during control of the switching element (76) by means of the control signal (the output signal from 104), wherein the evaluation elements, the memory, and the

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feedback element are configured with reference to ground (the circuits 148, 154, 160, 168, 169, 50, 108, 110 are all configured with a ground reference, see figure 2).

Regarding claim 11, Kade discloses the memory contains a comparator (160), wherein the comparator (160) is connected at a first comparator input to a hysteresis circuit (168, 169), so that an upper and lower hysteresis threshold voltage (an upper and lower trip levels) results which is in each case related to ground and the malfunction information is stored in the currently valid hysteresis threshold voltage (see col. 6, lines 36-47).

Regarding claim 12, Kade discloses the feedback element (108, 110) contains a release unit in from of an AND gate (the AND gates 108, 110) with two ground related release input signal (two ground related input signals L and R from the logic 50) and a ground related release output signal (a ground related output signal with respect to 104, 106).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kade in view of Fukuda et al (USPN 6,717,785).

Regarding claims 13-15, Kade disclose the switching element voltage (such as a voltage passing through each switching transistor 76, 78, 80, 82), at least when a

malfunction occurs (when an over-current occurs). But Kade does not disclose a measuring element as claimed.

Fukuda discloses a protection circuit (figure 1) comprises a measuring element (11, 12)) which is connected between a main connection of an auxiliary transistor (13) and a supply voltage (at node 4b).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified to circuit of Kade to incorporate a measuring element with a transistor as disclosed by Fukuda in order to provide a high speed cutoff so that protecting quickly a switching against an over-current event.

### ***Allowable Subject Matter***

3. Claims 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANNY NGUYEN whose telephone number is (571)272-2054. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL SHERRY can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Danny Nguyen/  
Examiner, Art Unit 2836